

FINAL REPORT

Sea Turtle Relocation Trawling

Aransas Pass, Texas



Dates:

14 April 2003 – 7 July 2003

Submitted by:

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Program Director**

ABSTRACT

A twenty-four-hour-per-day sea turtle relocation project was conducted onboard the fishing vessels *Miss Anna* and *Jana Lin* during the hopper dredging project in Aransas Pass, Texas from April 15 through July 7, 2003. Species targeted included Loggerhead (*Caretta caretta*), Kemp's Ridley (*Lepidochelys kempi*), Green (*Chelonia mydas*), Leatherback (*Dermochelys coriacea*), and Hawksbill (*Eretmochelys imbricata*) sea turtles. A total of seventy-one (71) sea turtles were caught, tagged, and safely released approximately 3-5 miles south east of the project area.

SCOPE OF WORK

The sea turtle abundance and relocation trawling project in Port Aransas, Texas was contracted by B+B Dredging Company. Remsa, Inc. provided the relocation trawling services and was to be responsible for providing the trawler, nets, equipment, and the necessary trained personnel. Trawling was to be conducted 24 hours per day. Methods and equipment were standardized as much as possible including data sheets, nets, trawling speed and direction to tide, length of segment, length of tow, and numbers of tows per segment. Trawling was conducted with repetitive 30-40 minute (total time) tows in the channel. Data sheets were provided by the Galveston District, Army Corps of Engineers (COE). Positions at the beginning and end of each tow were determined from GPS positioning equipment. Tow speed was taken at the approximate mid point of each tow. The trawler was fitted with two 60 foot trawling nets constructed from 8 inch mesh (stretch) as specified by the COE turtle trawling net specification.

All turtles that were caught were identified, measured, tagged, and released 3-5 miles south of the dredging project. Turtles were tagged with Inconel tags previously obtained from the University of Florida's Archie Carr Center for Sea Turtle Research in each of the front flippers according to National Marine Fisheries Service protocol. Fifteen sea turtles were also tagged with Passive Integrated Transponder (PIT) tags. Aseptic conditions were maintained for tag attachment and the tags themselves. Data on turtles was entered on standard data sheets provided by the COE. Photographs were taken of each turtle and appended to this report (Attachment 1).

Water temperature measurements were taken at the surface twice daily. Weather conditions were recorded including air temperature, wind velocity and direction, and sea state-wave height. High and low tides that include each tow time were recorded in military time.

Permits for handling threatened and endangered species were obtained from the appropriate federal and state agencies.

RESULTS

Dredging began in Port Aransas Entrance Channel on April 9, 2003. REMSA was given a notice to proceed with sea turtle relocation trawling on 14 April 2002 and trawling began on 15 April 2003. A total of 37 turtles were relocated and four additional turtles were taken by the dredge before a second trawler was given notice to proceed on 7 Jun 03. Following the addition of the second trawler there were no additional takes by the dredge during the remainder of the project.

Trawling was conducted for a total of eighty-four (84) days with a total of 2,239 tows of 40 minutes or less for an overall capture rate of .03 turtles per tow. A total of 71 sea turtles (1 Leatherback, 15 Kemp's Ridleys, and 55 Loggerheads) were captured, tagged, and released safely away from the project area. A total of three turtles were recaptured. The first recapture (Loggerhead) was caught on 6/14/03, released app. 1.5 miles away from the dredging area, and caught again 4 days later. The dredge crew boat that assisted in releasing turtles had mistakenly relocated this turtle too close. They were advised that the minimum distance was to be no less than 3 miles from the project site. The second recapture (Loggerhead) was caught on 6/9/03, released app. 3 miles away, and caught again 9 days later. After this occurrence, the remainder of the turtles were relocated to app. 5 miles away from the project site. The third recapture (Loggerhead) was first caught 6/22/03, released app. 5 miles away, and recaptured 13 days later.

A total of three turtles were injured and transported to the University of Texas Marine Science Institute for rehabilitation. The first injured turtle was a Loggerhead that was missing its left eye. It was partially healed but still in need of medical attention. The second injured turtle was a Loggerhead that was captured in the door chain, an extremely unusual circumstance. This turtle may have sustained an injury to its flipper. The third injured turtle was also a Loggerhead that was missing part of its left front flipper, an old wound. None of the injuries appeared to be life threatening. Each of these three turtles were taken to the University of Texas Marine Science Institute for rehabilitation.

On June 29, 2003 the relocation vessel *Jana Lin* caught a Bottlenose dolphin (*Tursiops truncatus*). The dolphin was not responsive and was pronounced dead on arrival at the Texas Marine Science Institute. It was transported to NMFS Galveston Lab for necropsy, which later indicated that the dolphin was sick with pneumonia. All reports of this incident are appended to this report (Attachment 2).

Trawling reports were completed for each tow which included: begin tow and end tow times, depth, speed mid tow, latitude and longitude, station/bouys, water temperature, wave height, air temperature, wind speed, bycatch, number of turtles, and comments were recorded. Copies of these reports were turned in to the COE Galveston district on a daily basis. Copies of these reports will not be duplicated for this report because of the sheer volume, but copies are available upon request.

The sea temperature during this period fluctuated between 16-30° C and averaged 24° C.

DISCUSSION-RECOMMENDATIONS

The Port Aransas dredging project occurred at the height of sea turtle nesting season. The overall success of the project yielded valuable data in REMSA's efforts to prove the beneficial effects of relocation trawling. Although a total of five turtles were taken (1 Lk and 4 Cc) by the dredge, it is obvious that relocation trawling was an effective tool in reducing the number of incidents. It should be noted that not a single take occurred after the second trawler was mobilized.

REMSA has relocated turtles for every major dredging company in the US and besides Cape Canaveral (2001), this project was one of the most aggressive. Part of the success of this project should be given to B + B Dredging and the Corps of Engineers, Galveston District for their active role in trying to reduce the number of incidents on this project. Their willingness to communicate effectively with both trawlers and to assist in every aspect from aiding in the release of turtles to the dredge standing by while turtles were being released was commendable.

If you would like more information on any aspect of this report, feel free to contact me directly at (757) 723-2930.

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Attachment 1
Photographs of Turtles Captured

*Due to varying circumstances some photos were not recovered.



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Aransas Turtles

8/8/2003

ID	DATE	Sp	Time	Capture Lat	Capture Long	SCL min	SCL n-t	SCL t-t	SCW	CCL min	CCL n-t	CCL t-t	CCW	Plas L	Plas W	Tail	Head	Weight	Depth	Left Tag	Right Tag	PIT tag #	Release Lat	Release Long
1	4/16/2003	Lk	0235 hrs	27°49.096	97°00.523	35 cm	39 cm	40 cm	28 cm	31.5 cm	32.3 cm	32.6 cm	33 cm	25 cm	23 cm	5 cm	7 cm			RRA 756	RRA 755		27°46.375	97°01.798
2	4/16/2003	Cc	0409 hrs	27°49.280	97°00.920	61.9 cm	63 cm	63.8 cm	53.7 cm	65 cm	66 cm	66.5 cm	66 cm	48.5 cm	48.5 cm	13 cm	13 cm			RRA 758	RRA 757		27°46.375	97°01.798
3	4/16/2003	Lk	0559 hrs	27°49.129	97°00.631	53.2 cm	53.8 cm	54.3 cm	52.5 cm	55 cm	55.5 cm	56 cm	56.5 cm	39.5 cm	44.4 cm	14 cm	11 cm			RRA 760	RRA 759		27°46.375	97°01.798
4	4/16/2003	Lk	0700 hrs	27°49.550	97°01.336	57.7 cm	58.7 cm	59 cm	59 cm	60.5 cm	61 cm	62 cm	66.5 cm	44.5 cm	47.5 cm	18 cm	13 cm			RRA 762	RRA 761		27°46.375	97°01.798
5	4/16/2003	Lk	1020 hrs	27°49.350	97°00.918	62.7 cm	63.3 cm	63.7 cm	62.5 cm	65.3 cm	66 cm	67.4 cm	70 cm	51.5 cm	48 cm	33 cm	13.2 cm			RRA 764	RRA 763		27°51.540	96°59.155
6	4/16/2003	Lk	1230 hrs	27°49.563	97°01.498	51.5 cm	52.5 cm	52.8 cm	51.6 cm	54 cm	54.7 cm	56 cm	59 cm	39.5 cm	41.5 cm	12.5 cm	11.5 cm			RRA 766	RRA 765		27°51.540	96°59.155
7	4/16/2003	Cc	1918 hrs	27°49.325	97°00.930	59 cm	61 cm	61.6 cm	49.7 cm	62 cm	63.5 cm	64 cm	59 cm	48 cm	46.5 cm	12 cm	11.5 cm			RRA 768	RRA 767		27°48.747	96°58.403
8	4/18/2003	Lk	0447 hrs	27°49.234	97°00.815	58.6 cm	58.5 cm	59 cm	57.9 cm	61.9 cm	62 cm	63.3 cm	66.2 cm	46 cm	61.2 cm	46 cm	12 cm	21 cm		RRA 770	RRA 769		27°47.840	97°00.775
9	4/24/2003	Cc	2320 hrs	27°49.600	97°01.582	69.9 cm	70.4 cm	72.3 cm	60.1 cm	75 cm	75.5 cm	76.5 cm	75 cm	56 cm	52.5 cm	13.5 cm	14.5 cm							
10	4/25/2003	Dc	2140 hrs	27°49.341	97°01.092	113.4 cm		117.8 cm	72.8 cm	120 cm		124 cm	82 cm			11 cm	18.5 cm			RRA 774	RRA 773		27°50.423	96°57.765
11	4/26/2003	Lk	1526 hrs	27°49.453	97°01.368	35.8 cm	36.7 cm	37 cm	35.8 cm	37.5 cm	38.5 cm	38.5 cm	40.5 cm	29 cm	30 cm	7.5 cm	8 cm	10 lbs.	29.4 cm	RRA 776	RRA 775		27°47.279	97°01.786
12	4/28/2003	Cc	0743 hrs	27°49.462	97°01.575	84.6 cm	86.9 cm	89.3 cm	67.8 cm	89.7 cm	91.1 cm	93.2 cm	84.1 cm	64.5 cm	60.4 cm	16.7 cm	18.6 cm			RRA 778	RRA 777		27°46.464	97°00.919
13	4/30/2003	Lk	0328 hrs	27°49.417	97°01.215	61.2 cm	61.9 cm	62.2 cm	59.1 cm	64.2 cm	64.5 cm	65.9 cm	66.3 cm	46.4 cm	47.8 cm	14 cm	12.5 cm			RRA 780	RRA 779		27°46.282	97°02.108
14	5/2/2003	Cc	0450 hrs	27°49.621	97°01.588	59.7 cm	60.6 cm	61.9 cm	51.7 cm	62.8 cm	63.7 cm	64.9 cm	63.5 cm	50.1 cm	45 cm	13.3 cm	10.9 cm	80 lbs.	26 cm	RRA 782	RRA 781		27°47.523	97°00.428
15	5/2/2003	Lk	1240 hrs	27°49.506	97°01.722	63.3 cm	64.1 cm	64.3 cm	64.4 cm	65.8 cm	66.8 cm	67.1 cm	69.8 cm	46.8 cm	54.2 cm	30.6 cm	12.1 cm	65 lbs.	16.0 cm	RRA 783	RRA 784		27°46.918	97°00.919
16	5/6/2003	Cc	2042 hrs	27°49.550	97°01.488	86.5 cm		89.6 cm	64.4 cm	89.9 cm	91.9 cm	92.3 cm	85 cm	61.9 cm	58 cm	27.8 cm	18.4 cm							
17	5/8/2003	Cc	1710 hrs	27°48.087	96°59.535	75.1 cm	76.3 cm	77.4 cm	60.9 cm	81.6 cm	82.2 cm	83.1 cm	77.9 cm	58.2 cm		16.7 cm	16.1 cm	140 lbs.	31.2 cm	RRA 785	RRA 786		27°48.369	97°01.795
18	5/8/2003	Cc	1851 hrs	27°49.132	97°00.645	70.4 cm	71.6 cm	73.5 cm	59.9 cm	77.5 cm	78 cm	78.4 cm	75.9 cm	57 cm	54.5 cm	15.4 cm	13.7 cm	130 lbs.	27.8 cm	RRA 787	RRA 788		27°48.369	97°01.795
19	5/11/2003	Cc	0901 hrs	27°49.100	97°00.537	82.3 cm	82.5 cm	83.4 cm	78.8 cm	83.4 cm	83.4 cm	78.8 cm	60 cm	59 cm	56.5 cm	17.2 cm	18.4 cm	128 lbs.	26.2 cm	RRA 789	RRA 790		27°46.045	97°00.669
20	5/11/2003	Cc	1212 hrs	27°49.002	97°00.416	47 cm	48.5 cm	49.7 cm	44.8 cm	51.6 cm	53.6 cm	54.6 cm	56.1 cm	39.6 cm	39.3 cm	6.7 cm	11.1 cm	47 lbs.	22.9 cm	RRA 791	RRA 792		27°45.961	97°00.831
21	5/11/2003	Cc	1525 hrs	27°49.158	97°00.540	60.8 cm	61.6 cm	62.5 cm	55.4 cm	65.9 cm	66.9 cm	69.3 cm	67.1 cm	49.9 cm	48.7 cm	12.7 cm	12.1 cm	98 lbs.	27.8 cm	RRA 793	RRA 794		27°46.235	97°00.792
22	5/11/2003	Cc	1914 hrs	27°45.538	97°01.090	66.8 cm	68.2 cm	68.5 cm	56.2 cm	73.1 cm	74.2 cm	74.4 cm	69.4 cm	52.9 cm	51.1 cm	16.5 cm	15.2 cm	110 lbs.	28.8 cm	RRA 795	RRA 796		27°45.538	97°01.090
23	5/11/2003	Cc	2010 hrs	27°49.138	97°00.678	68.3 cm	69.4 cm	70.7 cm	55.2 cm	76.9 cm	76.2 cm	76.7 cm	76.9 cm	53.5 cm	50.6 cm	15.5 cm	14.5 cm			RRA 797	RRA 798		27°46.407	97°02.461
24	5/12/2003	Cc	0015 hrs	27°49.029	97°00.045	64.2 cm	65.1 cm	66.3 cm	52.3 cm	68 cm	69.5 cm	70.2 cm	66.1 cm	49.4 cm	46.0 cm	13.9 cm	14.6 cm	98 lbs.	25.1 cm	RRA 799	RRA 800		27°46.621	97°00.532
25	5/12/2003	Cc	0724 hrs	27°49.109	97°00.634	73.7 cm	75.7 cm	77.1 cm	56.7 cm	80.5 cm	81.7 cm	83.1 cm	77.5 cm	58.6 cm	52.9 cm	18.5 cm	15.5 cm	140 lbs.	27.9 cm	RRG 501	RRG 502		27°45.538	97°01.090
26	5/12/2003	Cc	2220 hrs	27°49.092	97°00.624	51.4 cm	53.2 cm	52.1 cm	43.2 cm	57.4 cm	58.4 cm	58.6 cm	56.6 cm	41.8 cm	40.3 cm	9.5 cm	11.6 cm	60 lbs.	22.8 cm	RRG 503	RRG 504		27°46.174	97°01.608
27	5/13/2003	Cc	0217 hrs	27°48.944	97°00.349	71.2 cm	72.7 cm	72.9 cm	56.4 cm	76.5 cm	78 cm	78.5 cm	75.5 cm	55.5 cm	50.5 cm	17.5 cm	15 cm	100 lbs.	31.0 cm	RRG 505	RRG 506		27°46.406	97°02.224
28	5/13/2003	Cc	0826 hrs	27°49.140	97°00.635	42.8 cm	44.5 cm	44.7 cm	34.5 cm	49.4 cm	51.4 cm	51.6 cm	47.6 cm	34 cm	31.2 cm	8.7 cm	10 cm	30 lbs.	19.4 cm	RRG 509	RRG 510		27°46.620	97°02.497
29	5/13/2003	Cc	1326 hrs	27°49.044	97°00.424	70.6 cm	71.9 cm	73.8 cm	56.5 cm	70.5 cm	70.6 cm	72.5 cm	73 cm	55 cm	52 cm	17 cm	15 cm	140 lbs.	30.9 cm	RRG 513	RRG 512		27°46.641	97°02.459
30	5/13/2003	Cc	1553 hrs	27°48.904	97°00.146	71.5 cm	72.5 cm	73.5 cm	61 cm	77 cm	79.5 cm	80 cm	77 cm	58 cm	55 cm	15.5 cm	16.5 cm	135 lbs.	31.0 cm	RRG 514	RRG 515		27°46.706	97°02.655
31	5/17/2003	Lk	1937 hrs	27°49.660	97°01.623	55.4 cm	56.4 cm	56.5 cm	55.5 cm	58.3 cm	58.6 cm	58.7 cm	61.8 cm	43.6 cm	45.3 cm	16.2 cm	11 cm	60 lbs.	20.6 cm	RRG 516	RRG 517		27°46.595	97°02.410
32	5/18/2003	Lk	0032 hrs	27°49.422	97°01.304	55 cm	56 cm	56.6 cm	51.8 cm	56.7 cm	58.3 cm	59.6 cm	59.7 cm	43.2 cm	43 cm	14 cm	10.5 cm	50 lbs.	20.6 cm	RRG 518	RRG 519		27°46.590	97°02.605
33	5/18/2003	Lk	0127 hrs	27°49.578	97°01.495	52.6 cm	53.8 cm	55.1 cm	51.9 cm	55 cm	56 cm	57.9 cm	58.3 cm	40.5 cm	43.5 cm	13.5 cm	11 cm	58 lbs.	20.2 cm	RRG 520	RRG 521		27°46.590	97°02.605
34	5/18/2003	Cc	1036 hrs	27°49.527	97°01.310	71.8 cm	73.3 cm	73.6 cm	59.3 cm	77.7 cm	80.1 cm	79.4 cm	75.4 cm	57.2 cm	52.2 cm	21.6 cm	14.8 cm	130 lbs.	28.3 cm	RRG 522	RRG 523		27°46.637	97°02.470
35	5/19/2003	Cc	0529 hrs	27°49.492	97°01.274	85 cm	87 cm	88.7 cm	67 cm	91 cm	93 cm	96 cm	84.5 cm	69 cm	62 cm	16 cm	18.5 cm	200 lbs.	35 cm	RRG 524	RRG 525		27°47.739	97°01.971
36	5/28/2003	Cc	0644 hrs	27°49.609	97°01.455	69.2 cm	70.2 cm	71.3 cm	57.2 cm	75.5 cm	75.9 cm	77.5 cm	71.5 cm	54.5 cm	48 cm	11.7 cm	14.5 cm	110 lbs.	31 cm	RRG 526	RRG 527		27°46.888	97°02.434
37	5/28/2003	Lk	1253 hrs	27°49.427	97°01.403	61.9 cm	62.4 cm	63.7 cm	61.5 cm	65 cm	65.1 cm	66.6 cm	67 cm	48.6 cm	49.2 cm	11.1 cm	13.9 cm	80 lbs.		RRG 528	RRG 529		27°46.383	97°01.062
38	6/8/2003	Cc	1903 hrs	27°49.128	97°00.592	67.1 cm	68.8 cm	69 cm	69.8 cm	72.5 cm	72.6 cm	74.3 cm	70.1 cm	52.6 cm	49.8 cm	15.6 cm	14.2 cm	75 lbs.	27.8 cm	RRG 576	RRG 577		27°45.856	97°01.718
39	6/8/2003	Cc	1949 hrs	27°49.156	97°00.574	59.4 cm	60.9 cm	62.3 cm	52.2 cm	63.9 cm	65.5 cm	66.5 cm	62.2 cm	48.4 cm	47.9 cm	11.9 cm	12.6 cm	60 lbs.	22.9 cm	RRG 578	RRG 579		27°45.856	97°01.718
40	6/9/2003	Cc	1010 hrs	27°49.143	97°00.518	41.6 cm	42.8 cm	44.5 cm	33.3 cm	48.6 cm	48.8 cm	48.9 cm	45.9 cm	34.9 cm	32.2 cm	9.2 cm	9.8 cm	30 lbs.	17.9 cm	RRG 580	RRG 581	42326B3C10	27°46.077	97°01.789
41	6/9/2003	Cc	1920 hrs	27°48.120	97°00.560	60.9 cm			48.3 cm	67.3 cm			66 cm	46.9 cm	46.9 cm		11.9 cm			RRG 531	RRG 530		27°46.090	97°01.580
42	6/9/2003	Cc	2055 hrs	27°48.592	96°59.745	67.5 cm	69.4 cm	71 cm	55.5 cm	72.5 cm	74.5 cm	76 cm	69 cm	54 cm	51 cm	13.5 cm	15.5 cm	105 lbs.	28.4 cm	RRG 582	RRG 583		27°46.057	97°01.474
43	6/10/2003	Cc	0143 hrs	27°49.598	96°58.009	63.4 cm	63.4 cm	64.4 cm	48.9 cm	67.6 cm	70.4 cm	69.1 cm	65.2 cm	48.8 cm	47.4 cm	13.6 cm	13.1 cm	75 lbs.	23.9 cm	RRG 584	RRG 585	42336A3B6D	27°47.119	97°47.119

ID	DATE	Sp	Time	Capture Lat	Capture Long	SCL min	SCL n-t	SCL t-t	SCW	CCL min	CCL n-t	CCL t-t	CCW	Plas L	Plas W	Tail	Head	Weight	Depth	Left Tag	Right Tag	PIT tag #	Release Lat	Release Long	
44	6/10/2003	Cc	0459 hrs	27°48.747	96°59.994	59.8 cm	60.6 cm	61.7 cm	49.8 cm	63.9 cm	64.5 cm	65.8 cm	63.8 cm	46 cm	43.4 cm	12.7 cm	13.7 cm	75 lbs.	21.2 cm	RRG 586	RRG 587	42353E1A67	27°47.119	97°00.610	
45	6/10/2003	Cc	0648 hrs	27°48.990	95°59.890	73.6 cm			63.5 cm	83.8 cm			81.3 cm	55.9 cm	58.4 cm					RRG 532	RRG 533	42332C7661	27 °47.119	97°00.010	
46	6/10/2003	Cc	1615 hrs	27°48.959	97°00.531	60.5 cm	62.3 cm	62.9 cm	50.9 cm	68 cm	69.5 cm	70 cm	64 cm	48 cm	46 cm	13.5 cm	13 cm	80 lbs.	22.4 cm	RRG 588	RRG 589	42336C1812	27°45.931	97°01.266	
47	6/10/2003	Cc	1615 hrs	27°48.959	97°00.531	64.5 cm	65.5 cm	67.3 cm	53.2 cm	70.3 cm	71.2 cm	72.5 cm	69.5 cm	50.9 cm	46.4 cm	14 cm	13.5 cm		23.2 cm	RRG 590	RRG 591	42332O5O17	27°45.931	97°01.266	
48	6/10/2003	Cc	1731 hrs	27°48.820	96°59.810	62.5 cm	64.3 cm	65.6 cm	54 cm	68.4 cm	70.3 cm	71 cm	66.4 cm	51.9 cm	48 cm	10.2 cm	13.5 cm	90 lbs	23.1 cm	RRG 535	RRG 534	4233116005	27°45.931	97°01.266	
49	6/11/2003	Cc	0558 hrs	27°49.037	97°00.385	63.6 cm	65.5 cm	66 cm	52 cm	70.4 cm	70.7 cm	71.4 cm	67.3 cm	49.4 cm	45.5 cm	13.2 cm	12.5 cm	80 lbs.	23.6 cm	RRG 592	RRG 593	423227700F	27°46.652	97°01.060	
50	6/11/2003	Cc	1420 hrs	27°48.690	96°59.870	74.5 cm			59.1 cm	81 cm			77.5 cm	58.4 cm	53.6 cm		14.7 cm		31.1 cm	RRG 536	RRG 537		27°50.430	96°56.790	
51	6/11/2003	Lk	2000 hrs	27°49.017	97°00.368	59.6 cm	61 cm	61.2 cm	59.6 cm	62.1 cm	63.2 cm	64.6 cm	68.3 cm	47.7 cm	51 cm	12.5 cm	13.5 cm	72 lbs.	21.4 cm	RRG 594	RRG 595		27°51.440	96°58.916	
52	6/14/2003	Cc	0730 hrs	27°48.903	97°00.191	62.4 cm	63.4 cm	64.4 cm	48.9 cm	67.6 cm	70.4 cm	69.1 cm	65.2 cm	48.8 cm	47.4 cm	13.6 cm	13.1 cm	75 lbs.	23.9 cm	RRG 584	RRG 585	42336A3B6D	27°51.519	96°58.825	
53	6/17/2003	Cc	0923 hrs	27°49.021	97°00.763	41.6 cm	42.8 cm	44.5 cm	33.3 cm	48.6 cm	48.8 cm	48.9 cm	45.9 cm	34.9 cm	32.2 cm	9.2 cm	9.8 cm	30 lbs.	17.9 cm	RRG 580	RRG581	42326B3C10	27°44.237	97°02.875	
54	6/17/2003	Cc	1523 hrs	27°48.879	97°00.125	70.2 cm	71.6 cm	73 cm	55.8 cm	75 cm	76 cm	78 cm	73.5 cm	57 cm	50 cm	16.5 cm	15 cm	100 lbs	26.8 cm	RRG 538	RRG 539		27°44.216	97°02.620	
55	6/21/2003	Cc	0809 hrs	27°49.001	97°00.333	58 cm	58.6 cm	59.9 cm	49.7 cm	63 cm	63.8 cm	64.3 cm	60.2 cm	45.7 cm	42.3 cm	10.5 cm	12.8 cm	70 lbs	25.5 cm	RRG 540	RRG 541	4452341012	27°44.549	97°03.283	
56	6/21/2003	Cc	1949 hrs	27°49.122	97°00.295	70.7 cm	71.9 cm	73.3 cm	59.5 cm	77.5 cm	78.5 cm	79.7 cm	75 cm	36.5 cm	44.7 cm	15.3 cm	15 cm	130 lbs.	29.5 cm	RRG 596	RRG 597	4235621C1F	27°44.122	97°02.804	
57	6/22/2003	Cc	1112 hrs	27°49.038	97°00.161	64.7 cm	66.7 cm	68.5 cm	55.8 cm	71.2 cm	72.5 cm	74.8 cm	73.4 cm	53.1 cm	47 cm	11.6 cm	13.7 cm	90 lbs	29.8 cm	RRG 542	RRG 543	44520A6B00	27°44.668	97°03.122	
58	6/22/2003	Cc	1940 hrs	27°48.882	97°00.510	70 cm	71.4 cm	73.2 cm	60.2 cm	75.7 cm	77.2 cm	79 cm	72.5 cm	56.1 cm	52.5 cm	15 cm	13.4 cm	130 lbs	29 cm	RRG 544	RRG 545	44526E3F67	27°43.923	97°02.118	
59	6/22/2003	Lk	2015 hrs	27°48.686	96°59.865	68.1 cm	68.7 cm	69.5 cm	62.8 cm	71.2 cm	71.9 cm	73.2 cm	71.7 cm	51 cm	50.9 cm	19.6 cm	14.3 cm	110 lbs	24.8 cm	RRG 546	RRG 547	4454591000	27°43.923	97°02.118	
60	6/22/2003	Cc	2252 hrs	27°48.939	96°59.974	59.4 cm	60.4 cm	62.3 cm	51 cm	63.2 cm	64.2 cm	65.2 cm	60.5 cm	48.4 cm	45.3 cm	11.9 cm	13.3 cm	90 lbs		RRG 548	RRG 549	44535D0958	27°43.932	97°02.208	
61	6/23/2003	Cc	1108 hrs	27°48.989	97°00.066	68.1 cm	69.6 cm	70.2 cm	53.1 cm	72.4 cm	73.1 cm	74.8 cm	65.4 cm	51.9 cm	46.1 cm	14.9 cm	14.3 cm	100 lbs	27.2 cm	RRA 733	RRA 734	445264064F	27°43.883	97°02.327	
62	6/24/2003	Cc	0437 hrs	27°49.057	97°00.216		76 cm	77.5 cm	60 cm		80 cm	82 cm	76 cm	58.5 cm	51 cm		15 cm			RRG 402	RRG 401		27°43.834	97°02.705	
63	6/24/2003	Cc	1421 hrs	27°48.890	97°00.188	79 cm	80.5 cm	82 cm	61 cm	87 cm	88 cm	90 cm	83 cm	59.5 cm	53 cm	15.5 cm	18 cm	160 lbs	32 cm	RRA 735	RRA 736		27°44.414	97°02.844	
64	6/24/2003	Cc	1424 hrs	27°48.963	97°00.067	62.5 cm	63.7 cm	64.5 cm	53 cm	67.5 cm	68 cm	69 cm	65.5 cm	50 cm	46 cm		15.2 cm			RRG 404	RRG 403		27°44.428	97°03.431	
65	6/24/2003	Cc	2255 hrs	27°49.073	97°00.500	69 cm	70.5 cm	71.5 cm	56.5 cm	73.5 cm	75 cm	76 cm	72.5 cm	59 cm	51 cm		14 cm			RRG 406	RRG 405		27°44.544	97°03.204	
66	6/25/2003	Cc	0509 hrs	27°48.891	97°00.187	55.8 cm	56.3 cm	56.7 cm	45.8 cm	59.5 cm	60.5 cm	61.5 cm	56 cm	43 cm	40 cm	12.5 cm	11.5 cm		21.4 cm	RRA 737	RRA 738		27°44.005	97°02.486	
67	6/25/2003	Cc	1118 hrs	27°49.096	97°00.231	60 cm	60.5 cm	63 cm	51 cm	66 cm	67.5 cm	68 cm	64 cm	48 cm	46 cm	13.5 cm	12.5 cm	65 lbs		RRA 739	RRA 740		27°44.006	97°02.666	
68	6/29/2003	Cc	1823 hrs	24°49.472	97°00.990	65 cm	66.5 cm	66.7 cm	50.2 cm	70.5 cm	71.5 cm	73 cm	63 cm	50.5 cm	46 cm	13.5	13.2 cm	55 lbs		RRA 772	RRA 773		27°44.456	97°03.257	
69	7/2/2003	Cc	1435 hrs	27°49.081	97°00.315	72 cm	74 cm	75 cm	56.5 cm	80.5 cm	81.7 cm	82.5 cm	74 cm	56 cm	51.5 cm		15 cm			RRG 408	RRG 407		27°44.334	97°02.803	
70	7/4/2003	Cc	1020 hrs	27°48.707	96°59.586	64.7 cm	66.7 cm	68.5 cm	55.8 cm	71.2 cm	72.5 cm	74.8 cm	73.4 cm	53.1 cm	47 cm	11.6 cm	13.7 cm	90 lbs	29.8 cm	RRG 542	RRG 543	44520A6R00	27°44.650	97°02.506	
71	7/4/2003	Cc	1630 hrs	27°49.305	97°00.850	64 cm	65.5 cm	66.5 cm	54 cm	70 cm	70.5 cm	72 cm	67 cm	52 cm	48.5 cm		13 cm				RRG 409				

Attachment 2
Bottlenose Dolphin Incident



REMSA
RESEARCH, ENVIRONMENTAL
& MANAGEMENT SUPPORT

3 July 2003

Carrie Hubard
National Marine Fisheries Service
Office of Protected Resources
Silver Spring, MD 20910

Subject: *Tursiops truncatus* take, Aransas Pass, TX

Dear Ms. Hubard,

We regret to inform you that on 29 June 2003 at 1456 hrs our relocation trawling vessel the *Jana Lin* working in Port Aransas, Texas captured a Bottlenose dolphin (*Tursiops truncatus*). The coordinates of the tow in which the dolphin was captured were between: N27°48.921 W97°00.372 and N27°48.545 W96°54.866. The tow was only 23 minutes long.

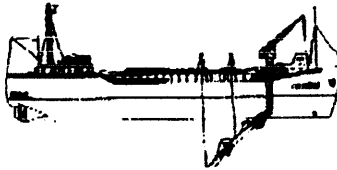
The dolphin was captured near the tail bag of the net. It was placed on deck and was immediately transported to the Texas Marine Science Institute (Tony Amos) located nearby. The onboard observer, Bonnie Brown, unsuccessfully attempted resuscitation by blowing into the blowhole. The dolphin was not responsive and was pronounced dead on arrival. It was then transported to the NMFS Galveston lab for necropsy. The dolphin did not appear to have any injuries.

Remsa is currently researching for guidelines on marine mammal resuscitation. It should be noted that the population of Bottlenose dolphins off the Texas/Louisiana coast is significant and notably more aggressive than most. Remsa's observers have witnessed on several occasions these particular dolphins untying the tail bags with their teeth and releasing bycatch as well as pulling on the lazy line, etc.

We will forward copies of the necropsy report as soon as it becomes available. Feel free to contact me if you have any questions.

Sincerely,

Trish Bargo
Marine Endangered Species Observer
Program Director



B+B DREDGING COMPANY
 451 DINWIDDIE STREET
 PORTSMOUTH, VA 23704

FACSIMILE TRANSMITTAL SHEET

TO: Abel Delzon COMPANY: Army Corps of Engineers PAX NUMBER: 361-884-3385 PHONE NUMBER: RE: Dolphin incident	FROM: Theo Schefferdie DATE: 6/25/2003 TOTAL NO. OF PAGES INCLUDING COVER: 2 SENDER'S REFERENCE NUMBER: 6/24/2003/58 YOUR REFERENCE NUMBER:
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☒ URGENT
 ☐ FOR REVIEW
 ☐ PLEASE COMMENT
 ☐ PLEASE REPLY
 ☐ PLEASE RECYCLE

NOTES/COMMENTS:

Dear Sir:

Yesterday between 14:33 and 14:56 one of our relocation trawlers, the "Jana Lin", caught a bottlenose dolphin in her nets.
 The dolphin was transported to the Marine Science Institute in Port Aransas, TX where it was pronounced to be DOA.
 It was transported to a freezer for further study.

Theo Schefferdie
 Project Manager

FIELD OFFICE : 449 ANCHOR DRIVE PORT ARANSAS, TX 78373 FAX (361) 749-0732



RESEARCH
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& MANAGEMENT SUPPORT

TOW #: 360

Channel: Aransas Pass Vessel: JANA LYN Captain: DANNARDY
Crew: Jose S. Soto

Date: 24 June 03
Time: to
Shot: 360
Dredge Location:
Total Tow Time: min.

Survey:
Relocation:
Pre-Dredge:

SUBSTRATE
Mud:
Sand:
Rocks:
Snag:
Other:

Low Tide Time: 1829
High Tide Time:
Ebb: Flood:
Slack Ebb: Slack Flood:
Comments:

Water Temp: 29C
Wave Height: 2-5 ft
Air Temperature: 28°C
Wind Speed/Direction: 20 South
Barometric Pressure:

Time: 1433
Depth: 49.6
Speed Mid-Tow: < 3.0 knots
Latitude: 27° 48.921
Longitude: 97° 00.372
Loran:
Station/Buoys:

Time: 1456
Depth: 47.6 ft
Total Tow Distance: ft
Latitude: 27° 48.545
Longitude: 96° 57.566
Loran:
Station/Buoys:

Port Net: Starboard Net:

Logger:
Kemp:
Green:
Other:

Logger:
Kemp:
Green:
Other:

BY CATCH/COMMENTS

Bottleneck Dolphin